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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/086,181

DATE: 03/14/2002
TIME: 12:17:40

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\03142002\J086181.raw

```
     4 <110> APPLICANT: GIMENO, Ruth
     6 <120> TITLE OF INVENTION: METHODS FOR THE TREATMENT OF METABOLIC
     7       DISORDERS, INCLUDING OBESITY AND DIABETES
     9 <130> FILE REFERENCE: MNI-220
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/086,181
C--> 11 <141> CURRENT FILING DATE: 2002-02-26
    11 <150> PRIOR APPLICATION NUMBER: 60/271,655
    12 <151> PRIOR FILING DATE: 2001-02-26
    14 <160> NUMBER OF SEQ ID NOS: 16
    16 <170> SOFTWARE: FastSEQ for Windows Version 4.0
    18 <210> SEQ ID NO: 1
    19 <211> LENGTH: 1743
    20 <212> TYPE: DNA
    21 <213> ORGANISM: Homo sapiens
    23 <220> FEATURE:
    24 <221> NAME/KEY: CDS
    25 <222> LOCATION: (44)...(1129)
    27 <400> SEQUENCE: 1
    28 tccggactag ttctagaccg ctgcgggccg ccaggcgccg gga atg tcc cct gaa   55
    29                                                 Met Ser Pro Glu
    30                                                  1
    32 tgc gcg cgg gca gcg ggc gac gcg ccc ttg cgc agc ctg gag caa gcc   103
    33 Cys Ala Arg Ala Ala Gly Asp Ala Pro Leu Arg Ser Leu Glu Gln Ala
    34  5                  10                  15                  20
    36 aac cgc acc cgc ttt ccc ttc ttc tcc gac gtc aag ggc gac cac cgg   151
    37 Asn Arg Thr Arg Phe Pro Phe Phe Ser Asp Val Lys Gly Asp His Arg
    38                  25                  30                  35
    40 ctg gtg ctg gcc gcg gtg gag aca acc gtg ctg gtg ctc atc ttt gca   199
    41 Leu Val Leu Ala Ala Val Glu Thr Thr Val Leu Val Leu Ile Phe Ala
    42              40                  45                  50
    44 gtg tcg ctg ctg ggc aac gtg tgc gcc ctg gtg ctg gtg gcg cgc cga   247
    45 Val Ser Leu Leu Gly Asn Val Cys Ala Leu Val Leu Val Ala Arg Arg
    46          55                  60                  65
    48 cga cgc cgc ggc gcg act gcc tgc ctg gta ctc aac ctc ttc tgc gcg   295
    49 Arg Arg Arg Gly Ala Thr Ala Cys Leu Val Leu Asn Leu Phe Cys Ala
    50      70                  75                  80
    52 gac ctg ctc ttc atc agc gct atc cct ctg gtg ctg gcc gtg cgc tgg   343
    53 Asp Leu Leu Phe Ile Ser Ala Ile Pro Leu Val Leu Ala Val Arg Trp
    54  85                  90                  95                  100
    56 act gag gcc tgg ctg ctg ggc ccc gtt gcc tgc cac ctg ctc ttc tac   391
    57 Thr Glu Ala Trp Leu Leu Gly Pro Val Ala Cys His Leu Leu Phe Tyr
    58                  105                 110                 115
    60 gtg atg acc ctg agc ggc agc gtc acc atc ctc acg ctg gcc gcg gtc   439
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Input Set : A:\Seqlist.txt
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61 Val Met Thr Leu Ser Gly Ser Val Thr Ile Leu Thr Leu Ala Ala Val
62             120                 125                 130
64 agc ctg gag cgc atg gtg tgc atc gtg cac ctg cag cgc ggc gtg cgg   487
65 Ser Leu Glu Arg Met Val Cys Ile Val His Leu Gln Arg Gly Val Arg
66         135                 140                 145
68 ggt cct ggg cgg cgg gcg cgg gca gtg ctg ctg gcg ctc atc tgg ggc   535
69 Gly Pro Gly Arg Arg Ala Arg Ala Val Leu Leu Ala Leu Ile Trp Gly
70     150                 155                 160
72 tat tcg gcg gtc gcc gct ctg cct ctc tgc gtc ttc ttt cga gtc gtc   583
73 Tyr Ser Ala Val Ala Ala Leu Pro Leu Cys Val Phe Phe Arg Val Val
74 165                 170                 175                 180
76 ccg caa cgg ctc ccc ggc gcc gac cag gaa att tcg att tgc aca ctg   631
77 Pro Gln Arg Leu Pro Gly Ala Asp Gln Glu Ile Ser Ile Cys Thr Leu
78                 185                 190                 195
80 att tgg ccc acc att cct gga gag atc tcg tgg gat gtc tct ttt gtt   679
81 Ile Trp Pro Thr Ile Pro Gly Glu Ile Ser Trp Asp Val Ser Phe Val
82             200                 205                 210
84 act ttg aac ttc ttg gtg cca gga ctg gtc att gtg atc agt tac tcc   727
85 Thr Leu Asn Phe Leu Val Pro Gly Leu Val Ile Val Ile Ser Tyr Ser
86         215                 220                 225
88 aaa att tta cag atc aca aag gca tca agg aag agg ctc acg gta agc   775
89 Lys Ile Leu Gln Ile Thr Lys Ala Ser Arg Lys Arg Leu Thr Val Ser
90     230                 235                 240
92 ctg gcc tac tcg gag agc cac cag atc cgc gtg tcc cag cag gac ttc   823
93 Leu Ala Tyr Ser Glu Ser His Gln Ile Arg Val Ser Gln Gln Asp Phe
94 245                 250                 255                 260
96 cgg ctc ttc cgc acc ctc ttc ctc ctc atg gtc tcc ttc ttc atc atg   871
97 Arg Leu Phe Arg Thr Leu Phe Leu Leu Met Val Ser Phe Phe Ile Met
98                 265                 270                 275
100 tgg agc ccc atc atc atc acc atc ctc ctc atc ctg atc cag aac ttc   919
101 Trp Ser Pro Ile Ile Ile Thr Ile Leu Leu Ile Leu Ile Gln Asn Phe
102             280                 285                 290
104 aag caa gac ctg gtc atc tgg ccg tcc ctc ttc ttc tgg gtg gtg gcc   967
105 Lys Gln Asp Leu Val Ile Trp Pro Ser Leu Phe Phe Trp Val Val Ala
106         295                 300                 305
108 ttc aca ttt gct aat tca gcc cta aac ccc atc ctc tac aac atg aca   1015
109 Phe Thr Phe Ala Asn Ser Ala Leu Asn Pro Ile Leu Tyr Asn Met Thr
110     310                 315                 320
112 ctg tgc agg aat gag tgg aag aaa att ttt tgc tgc ttc tgg ttc cca   1063
113 Leu Cys Arg Asn Glu Trp Lys Lys Ile Phe Cys Cys Phe Trp Phe Pro
114 325                 330                 335                 340
116 gaa aag gga gcc att tta aca gac aca tct gtc aaa aga aat gac ttg   1111
117 Glu Lys Gly Ala Ile Leu Thr Asp Thr Ser Val Lys Arg Asn Asp Leu
118                 345                 350                 355
120 tcg att att tct ggc taa tttttcttta tagccgagtt tctcacacct         1159
121 Ser Ile Ile Ser Gly  *
122             360
124 ggcgagctgt ggcatgcttt taaacagagt tcatttccag taccctccat cagtgcaccc 1219
125 tgctttaaga aaatgaacct atgcaaatag acatccacag cgtcggtaaa ttaaggggtg 1279
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RAW SEQUENCE LISTING DATE: 03/14/2002
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Input Set : A:\Seqlist.txt
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126 atcaccaagt ttcataatat tttcccttta taaaaggatt tgttggccag gtgcagtggt 1339
127 tcatgcctgt aatcccagca gtttgggagg ctgaggtggg tggatcacct gaggtcagga 1399
128 gttcgagacc aacctgacca acatggtgag acccccgtct ctactaaaaa taaaaaaaaa 1459
129 aattagctgg gagtggtggt gggcacctgt aatcctagct acttgggagg ctgaaccagg 1519
130 agaatctctt gaacctggga ggcagaggtt gcagtgagcc gagatcgtgc cattgcactc 1579
131 caaccagggc aacaagagtg aaactccatc ttaaaaaaaa aaaaaaaaag atttgttatg 1639
132 ggttcctttt aaatgtgaac ttttttagtg tgtttgtaat atgatcaaat ttaataaata 1699
133 tttatttatg actgttcagc aaaaaaaaaa aaaaaaaagg gcgg                  1743
135 <210> SEQ ID NO: 2
136 <211> LENGTH: 361
137 <212> TYPE: PRT
138 <213> ORGANISM: Homo sapiens
140 <400> SEQUENCE: 2
141 Met Ser Pro Glu Cys Ala Arg Ala Ala Gly Asp Ala Pro Leu Arg Ser
142  1               5                  10                  15
143 Leu Glu Gln Ala Asn Arg Thr Arg Phe Pro Phe Phe Ser Asp Val Lys
144             20                  25                  30
145 Gly Asp His Arg Leu Val Leu Ala Ala Val Glu Thr Thr Val Leu Val
146         35                  40                  45
147 Leu Ile Phe Ala Val Ser Leu Leu Gly Asn Val Cys Ala Leu Val Leu
148     50                  55                  60
149 Val Ala Arg Arg Arg Arg Arg Gly Ala Thr Ala Cys Leu Val Leu Asn
150 65                  70                  75                  80
151 Leu Phe Cys Ala Asp Leu Leu Phe Ile Ser Ala Ile Pro Leu Val Leu
152                 85                  90                  95
153 Ala Val Arg Trp Thr Glu Ala Trp Leu Leu Gly Pro Val Ala Cys His
154             100                 105                 110
155 Leu Leu Phe Tyr Val Met Thr Leu Ser Gly Ser Val Thr Ile Leu Thr
156         115                 120                 125
157 Leu Ala Ala Val Ser Leu Glu Arg Met Val Cys Ile Val His Leu Gln
158     130                 135                 140
159 Arg Gly Val Arg Gly Pro Gly Arg Arg Ala Arg Ala Val Leu Leu Ala
160 145                 150                 155                 160
161 Leu Ile Trp Gly Tyr Ser Ala Val Ala Ala Leu Pro Leu Cys Val Phe
162                 165                 170                 175
163 Phe Arg Val Val Pro Gln Arg Leu Pro Gly Ala Asp Gln Glu Ile Ser
164             180                 185                 190
165 Ile Cys Thr Leu Ile Trp Pro Thr Ile Pro Gly Glu Ile Ser Trp Asp
166         195                 200                 205
167 Val Ser Phe Val Thr Leu Asn Phe Leu Val Pro Gly Leu Val Ile Val
168     210                 215                 220
169 Ile Ser Tyr Ser Lys Ile Leu Gln Ile Thr Lys Ala Ser Arg Lys Arg
170 225                 230                 235                 240
171 Leu Thr Val Ser Leu Ala Tyr Ser Glu Ser His Gln Ile Arg Val Ser
172                 245                 250                 255
173 Gln Gln Asp Phe Arg Leu Phe Arg Thr Leu Phe Leu Leu Met Val Ser
174             260                 265                 270
175 Phe Phe Ile Met Trp Ser Pro Ile Ile Ile Thr Ile Leu Leu Ile Leu
176         275                 280                 285
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RAW SEQUENCE LISTING DATE: 03/14/2002
PATENT APPLICATION: US/10/086,181 TIME: 12:17:40

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\03142002\J086181.raw

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177 Ile Gln Asn Phe Lys Gln Asp Leu Val Ile Trp Pro Ser Leu Phe Phe
178     290                 295                 300
179 Trp Val Val Ala Phe Thr Phe Ala Asn Ser Ala Leu Asn Pro Ile Leu
180 305                 310                 315                 320
181 Tyr Asn Met Thr Leu Cys Arg Asn Glu Trp Lys Lys Ile Phe Cys Cys
182                 325                 330                 335
183 Phe Trp Phe Pro Glu Lys Gly Ala Ile Leu Thr Asp Thr Ser Val Lys
184             340                 345                 350
185 Arg Asn Asp Leu Ser Ile Ile Ser Gly
186         355                 360
189 <210> SEQ ID NO: 3
190 <211> LENGTH: 1086
191 <212> TYPE: DNA
192 <213> ORGANISM: Homo sapiens
194 <400> SEQUENCE: 3
195 atgtcccctg aatgcgcgcg ggcagcgggc gacgcgccct tgcgcagcct ggagcaagcc 60
196 aaccgcaccc gctttccctt cttctccgac gtcaagggcg accaccggct ggtgctggcc 120
197 gcggtggaga caaccgtgct ggtgctcatc tttgcagtgt cgctgctggg caacgtgtgc 180
198 gccctggtgc tggtggcgcg ccgacgacgc cgcggcgcga ctgcctgcct ggtactcaac 240
199 ctcttctgcg cggacctgct cttcatcagc gctatccctc tggtgctggc cgtgcgctgg 300
200 actgaggcct ggctgctggg ccccgttgcc tgccacctgc tcttctacgt gatgaccctg 360
201 agcggcagcg tcaccatcct cacgctggcc gcggtcagcc tggagcgcat ggtgtgcatc 420
202 gtgcacctgc agcgcggcgt gcggggtcct gggcggcggg cgcgggcagt gctgctggcg 480
203 ctcatctggg gctattcggc ggtcgccgct ctgcctctct gcgtcttctt tcgagtcgtc 540
204 ccgcaacggc tccccggcgc cgaccaggaa atttcgattt gcacactgat ttggcccacc 600
205 attcctggag agatctcgtg ggatgtctct tttgttactt tgaacttctt ggtgccagga 660
206 ctggtcattg tgatcagtta ctccaaaatt ttacagatca caaaggcatc aaggaagagg 720
207 ctcacggtaa gcctggccta ctcggagagc caccagatcc gcgtgtccca gcaggacttc 780
208 cggctcttcc gcaccctctt cctcctcatg gtctccttct tcatcatgtg gagccccatc 840
209 atcatcacca tcctcctcat cctgatccag aacttcaagc aagacctggt catctggccg 900
210 tccctcttct tctgggtggt ggccttcaca tttgctaatt cagccctaaa ccccatcctc 960
211 tacaacatga cactgtgcag gaatgagtgg aagaaaattt tttgctgctt ctggttccca 1020
212 gaaaagggag ccattttaac agacacatct gtcaaaagaa atgacttgtc gattatttct 1080
213 ggctaa                                                          1086
215 <210> SEQ ID NO: 4
216 <211> LENGTH: 1560
217 <212> TYPE: DNA
218 <213> ORGANISM: Murine ortholog
220 <220> FEATURE:
221 <221> NAME/KEY: CDS
222 <222> LOCATION: (195)...(1280)
224 <400> SEQUENCE: 4
225 ttgccaagct cagcgtaagc ctcttccact gcaatctcac agaaggggtt catggagtgc 60
226 ttcacaccat cagtgaccac tccagacttg tccggcttta cccgaatctt cacagcggag 120
227 tcgatgaccc tcttgacagc cacgagcgcg cgcagctccg ccatcttccc ggacgcgtgg 180
228 gccgggcgcc cggc atg tcc cct gag tgt gca cag acg acg ggc cct ggt   230
229                 Met Ser Pro Glu Cys Ala Gln Thr Thr Gly Pro Gly
230                  1               5                  10
232 ccc tcg cac acc ctg gac caa gtc aat cgc acc cac ttc cct ttc ttc   278
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RAW SEQUENCE LISTING DATE: 03/14/2002
PATENT APPLICATION: US/10/086,181 TIME: 12:17:40

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\03142002\J086181.raw

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233 Pro Ser His Thr Leu Asp Gln Val Asn Arg Thr His Phe Pro Phe Phe
234          15                  20                  25
236 tcg gat gtc aag ggc gac cac cgg ttg gtg ttg agc gtc gtg gag acc   326
237 Ser Asp Val Lys Gly Asp His Arg Leu Val Leu Ser Val Val Glu Thr
238      30                  35                  40
240 acc gtt ctg gga ctc atc ttt gtc gtc tca ctg ctg ggc aac gtg tgt   374
241 Thr Val Leu Gly Leu Ile Phe Val Val Ser Leu Leu Gly Asn Val Cys
242  45                  50                  55                  60
244 gct cta gtg ctg gtg gcg cgc cgt cgg cgc cgt ggg gcg tca gcc agc   422
245 Ala Leu Val Leu Val Ala Arg Arg Arg Arg Arg Gly Ala Ser Ala Ser
246                  65                  70                  75
248 ctg gtg ctc aac ctc ttc tgc gcg gat ttg ctc ttc acc agc gcc atc   470
249 Leu Val Leu Asn Leu Phe Cys Ala Asp Leu Leu Phe Thr Ser Ala Ile
250              80                  85                  90
252 cct cta gtg ctc gtc gtg cgc tgg act gag gcc tgg ctg ttg ggg ccc   518
253 Pro Leu Val Leu Val Val Arg Trp Thr Glu Ala Trp Leu Leu Gly Pro
254          95                  100                 105
256 gtc gtc tgc cac ctg ctc ttc tac gtg atg aca atg agc ggc agc gtc   566
257 Val Val Cys His Leu Leu Phe Tyr Val Met Thr Met Ser Gly Ser Val
258     110                 115                 120
260 acg atc ctc aca ctg gcc gcg gtc agc ctg gag cgc atg gtg tgc atc   614
261 Thr Ile Leu Thr Leu Ala Ala Val Ser Leu Glu Arg Met Val Cys Ile
262 125                 130                 135                 140
264 gtg cgc ctc cgg cgc ggc ttg agc ggc ccg ggg cgg cgg act cag gcg   662
265 Val Arg Leu Arg Arg Gly Leu Ser Gly Pro Gly Arg Arg Thr Gln Ala
266                 145                 150                 155
268 gca ctg ctg gct ttc ata tgg ggt tac tcg gcg ctc gcc gcg ctg ccc   710
269 Ala Leu Leu Ala Phe Ile Trp Gly Tyr Ser Ala Leu Ala Ala Leu Pro
270             160                 165                 170
272 ctc tac atc ttg ttc cgc gtg gtc ccg cag cgc ctt ccc ggc ggg gac   758
273 Leu Tyr Ile Leu Phe Arg Val Val Pro Gln Arg Leu Pro Gly Gly Asp
274         175                 180                 185
276 cag gaa att ccg att tgc aca ttg gat tgg ccc aac cgc ata gga gaa   806
277 Gln Glu Ile Pro Ile Cys Thr Leu Asp Trp Pro Asn Arg Ile Gly Glu
278     190                 195                 200
280 atc tca tgg gat gtg ttt ttt gag act ttg aac ttc ctg gtg ccg gga   854
281 Ile Ser Trp Asp Val Phe Phe Glu Thr Leu Asn Phe Leu Val Pro Gly
282 205                 210                 215                 220
284 ctg gtc att gtg atc agt tac tcc aaa att tta cag atc acg aaa gca   902
285 Leu Val Ile Val Ile Ser Tyr Ser Lys Ile Leu Gln Ile Thr Lys Ala
286                 225                 230                 235
288 tcg cgg aag agg ctt acg ctg agc ttg gca tac tct gag agc cac cag   950
289 Ser Arg Lys Arg Leu Thr Leu Ser Leu Ala Tyr Ser Glu Ser His Gln
290             240                 245                 250
292 atc cga gtg tcc caa caa gac tac cga ctc ttc cgc acg ctc ttc ctg   998
293 Ile Arg Val Ser Gln Gln Asp Tyr Arg Leu Phe Arg Thr Leu Phe Leu
294         255                 260                 265
296 ctc atg gtt tcc ttc ttc atc atg tgg agt ccc atc atc atc acc atc   1046
297 Leu Met Val Ser Phe Phe Ile Met Trp Ser Pro Ile Ile Ile Thr Ile
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VERIFICATION SUMMARY DATE: 03/14/2002
PATENT APPLICATION: US/10/086,181 TIME: 12:17:41

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\03142002\J086181.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date